

## REMARKS

In regards the telephonic interview applicant, Alfred Muldoon, and examiner, Jason Kurr,  
5 discussed the rejection of the applicants claims based on Wallaert and Holling. In the written  
response the examiner stated he would withdraw the finality of rejections of independent claims  
21 and 32. This should also include independent 25, for the same reasons as claim 21, since  
Wallaert does not teach "identifying any of said switches as functional that said  
sensing means verifies are open when said intended state is open."

10 In the interview the applicant pointed out that the Wallaert does not scan switches  
whose intended state is known to the control. Wallaert determines the state of  
switches whose state is not known to the control by any other means. It would  
therefore be impossible for a Wallaert control to determine the functionality of the  
15 switches it scans.

Also mentioned by the applicant, the switches scanned by Wallaert are not used to  
energize transducers which is the function of the switches in the present  
invention. The switches scanned by Wallaert are inputs to the control not  
20 switches used by the control to control transducers. Wallaert states that the  
energizing switches are turned off for about 1ms and then the current is turned  
on to the input switches the Wallaert control scans. Wallaert states that the 1ms  
time is short enough that the state of the transducers is not effected by the scan.

25 In regards to the rejections based on Holling, Holling is attempting to determine  
the time delay between when the control turns on the current to a relay and the  
time the points of the relay actually close. The goal of Holling is to close the  
points at or near the zero crossing of the ac line voltage.

30 To Holling it does not matter at what frequency the relay is switched on/off. The  
frequency could be once per minute or once per hour it does not matter to  
Holling. Whereas the present invention determines the frequency at which a  
switch's state is changed and should the frequency exceed the rate at which the  
load can be safely switched the control will prolong the period the switch is  
35 open. The delay of the present invention seeks to lower the frequency at which

the switch changes state – not to sync the change of state to ac line zero crossings.

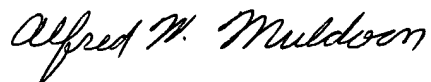
Further the applicant mentioned that he had found small errors in the claims.

5 Claim 31 was missing the word *energizing*. Claim 30 had an extra *of circuits*. Additionally the claims have been amended replacing the phrase *at least one* with the phrase *one or more* to address problems with the singular versus plural wording. Finally extra spaces in claims 21, 25 and 32 have been removed and a period was added in claim 29.

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In view of the amendments and these remarks, the applicant respectfully submits that the present application is in condition for allowance. A notice to that effect is earnestly and respectfully requested.

15 Respectfully submitted,



ALFRED W. MULDOON

Included are marked-up and clean versions of the amended claims for application 10/082,454 and a summary of the telephonic interview. Also included is this signed statement. I hereby declare that said substitute specification contains no new matter.

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Alfred W. Muldoon

10 There are a total of 12 pages

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